

ABSTRACT OF THE DISCLOSURE

A system and method for illuminating a target point in a real scene comprises an image capture device for capturing image data of a scene, an illumination device for projecting a beam of light at a target point in the scene; and a data processing device comprising computer readable program code embodied therein for processing image data associated with the target point and generating control signals to control the illumination system to direct a beam of light at the target point in the scene. Preferably, the imaging system and illumination system comprise an integrated system wherein the optical path for image formation is identical to that of light projection, so as to eliminate occlusion and eliminate the need for calibration.